THE FLOPPY EYELID SYNDROME: MEDICAL IMPLICATIONS

STEVEN J. LAUKAITIS, MD, FACS ALLURE FACIAL LASER CENTER

KIRKLAND SEATTLE KENNEWICK YAKIMA MOUNT VERNON

FLOPPY EYELID SYNDROME

- A clinical disease
- Ocular irritation
- Redness
- Mucous Discharg
- Systemic Associations
- May mimic other eye conditions

FLOPPY EYELID SYNDROME: INTRODUCTION

- First Described in 1981
- Obese Middle Aged Men
- Upper Eyelid easily everted: "Floppy"
- Usually during sleep
- Papillary Conjunctivitis
- Trauma from rubbing on pillowcase

FES Mimics Other Conditions

- Dry Eye
- Blepharitis
- This leads to a delay in diagnosis and treatment
- Triad of associated conditions

THE TRIAD









FLOPPY EYELID SYNDROME KERATOCONUS OBSTRUCTIVE SLEEP APNEA







FLOPPY EYELID SYNDROME
KERATOCONUS
OBTRUCTIVE SLEEP APNEA

There is a huge epidemic of obstructive sleep apnea



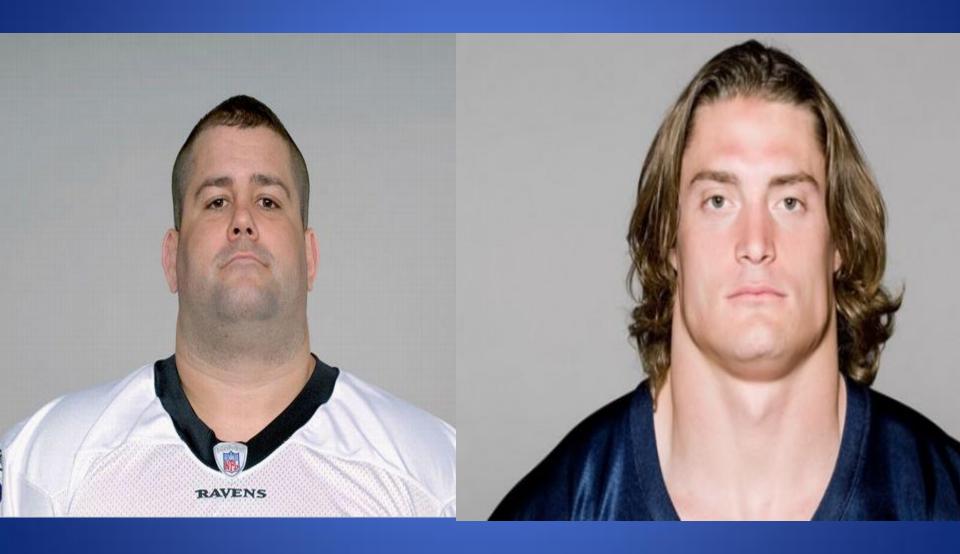


THICK TONGUE

TONGUE ABNORMALITIES



BULL NECK



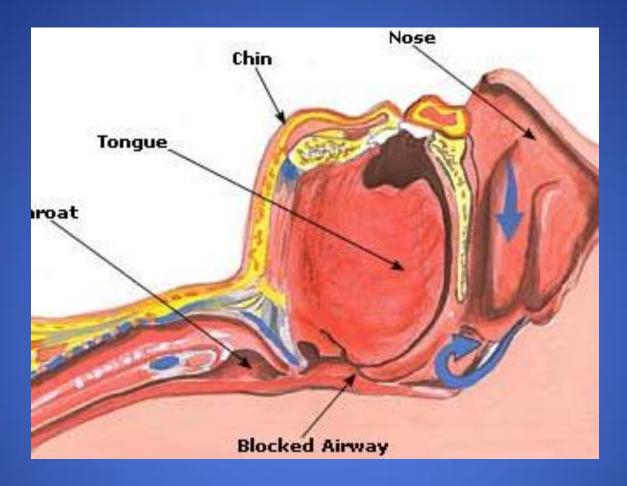
BULL NECK

- Weird But True The Biggest Necks In The NFL
- Dan Fogarty
- NFL players have big necks. Whether it's a result of genetics, strength training, or both, the average linebacker or offensive tackle tends to have a wider collar than you or I. But there is a subset of pro football players that have even bigger necks than their already big-necked NFL brethren. These scruffs are massive, bordering on the cartoonish, etc., etc.

SLEEP APNEA

- LOUD SNORING
- GASPING
- CHOKING FOR BREATH DURING SLEEP
- OBSTRUCTED AIRWAY WHILE ASLEEP





BLOCKED AIRWAY and SLEEP APNEA

32.6% of Obstructive Sleep Apnea Patients may have FES



50% of FES Patients may have Obstructive Sleep Apnea



SLEEP APNEA

30-50% OF FOLLOWING HAVE SLEEP APNEA:

- HEART FAILURE
- HYPERTENSION
- ATRIAL FIBRILLATION
- ISCHEMIC HEART DISEASE

RECOMMENDATION:

Screen patients with FES and/or Keratoconus for Sleep Apnea

FLOPPY EYELID SYNDROME: COMPLAINTS

Eyelids flip while sleeping



WHAT CAUSES FLOPPY EYELID SYNDROME?

ELASTIN

 There is a decreased amount of elastin in the tarsus

COLLAGEN

There is abnormal collagen



MATRIX METALLOPROTEINASES

- MMP
- DEFINITION: A Group of proteases known to regulate extracellular matrix turnover

MATRIX METALLOPROTEINASES MMP-12: ELASTOLYTIC

ELASTIN and COLLAGEN SUN DAMAGED SKIN





MATRIX METALLOPROTEINASES MMP-12: ELASTOLYTIC

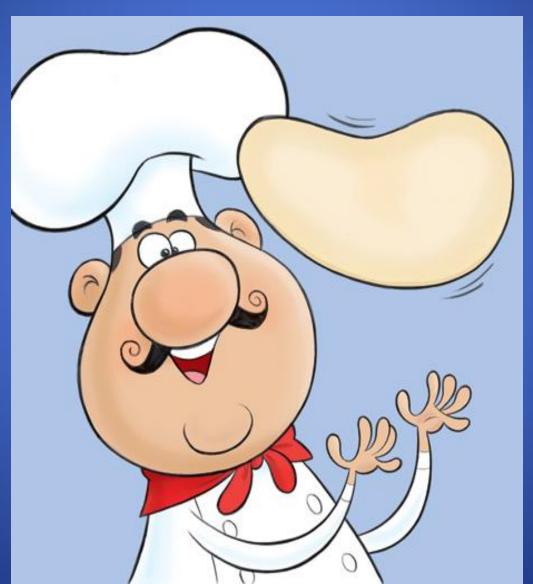
ELASTIN AND COLLAGEN



SUN DAMAGED SKIN



MMP's and FLOPPY EYELID SYNDROME



MATRIX METALLOPROTEINASES

- Elastolytic
 Proteinases
- Elevated in FES
- MMP-7
- MMP-9
- Upregulation of Elastolytic Enzymes
- Significant decrease in elastin in tarsal plate



RESULT of MMP's:

- ELASTIC FIBER DEGENERATION
- TARSAL LAXITY
- EYELASH PTOSIS
- IMBRICATION





COMMON ASSOCIATED SIGNS OF FLOPPY EYELID SYNDROME

- Patients with Keratoconus and F.E.S. are at high risk for sleep apnea
- Optometric Physicians should question patients with these conditions on their sleep habits
- If a patient is suspected of sleep apnea, they should be referred for sleep study

CLUES FOR FES

ASK:

- Do you have trouble sleeping?
- Do you snore or frequently awake?
- When you sleep, is your breathing interrupted?
- Are you sleepy during the day?

EYELID IMBRICATION



UPPER EYELID TARSAL LAXITY



MEIBOMIAN GLAND DYSFUNCTION



PAPILLARY CONJUNCTIVITIS



OCULAR DISCHARGE



BLEPHARITIS



EYELID EVERSION



LASH PTOSIS



TREATMENT OF FLOPPY EYELID SYNDROME

- Eye Lubricants
- Surgical Correction of Eyelid Laxity
- Medical Evaluation of associated systemic diseases

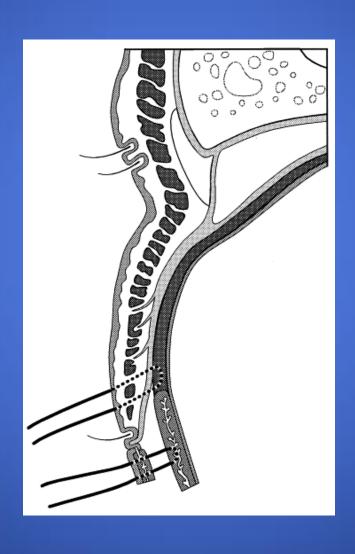


OCULAR LUBRICANTS

- REFRESH PM or Equivalent at bedtime
- Ocular Goggles at night
- SOOTHE drops in AM
- Fish Oil: EPA+DHA=1500 mg
- Azasite and Doxycycline may alter the MMP's



ANTERIOR LAMELLAR SPLIT



WEDGE RESECTION



WEDGE RESECTION SIDE EFFECT



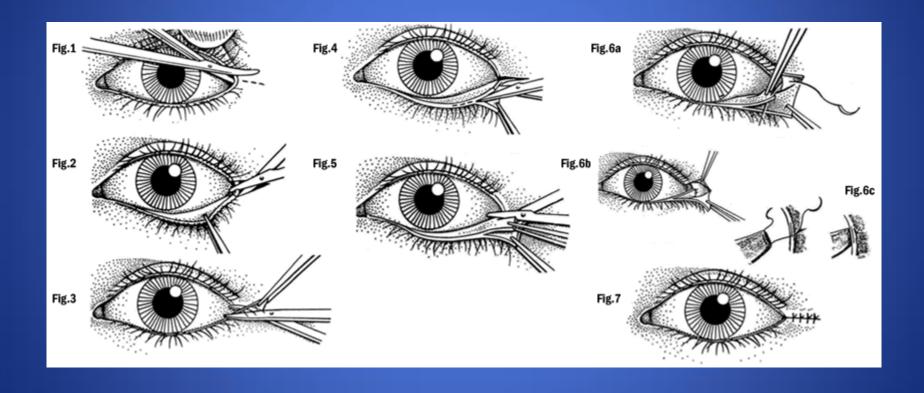
REPAIR OF EYELID IMBRICATION







LATERAL CANTHAL TENDON TIGHTENING



SUMMARY:

Triad
FES has a strong
association with Sleep
Apnea
FES mimics many eyelid
disorders
Medical and Surgical Tx.







THANK YOU!



